



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/756,931	01/13/2004	Andreas Junger	10191/3524	3747
26646	7590	06/05/2006	EXAMINER	
KENYON & KENYON LLP ONE BROADWAY NEW YORK, NY 10004			AMAYA, CARLOS DAVID	
			ART UNIT	PAPER NUMBER
			2836	
DATE MAILED: 06/05/2006				

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/756,931

Applicant(s)

JUNGER ET AL.

Examiner

Carlos Amaya

Art Unit

2836

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01/13/2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 13 January 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 9-13 are rejected under 35 U.S.C. 102(b) as being anticipated by Olney (US 5,707,215).

With respect to claim 1 Olney discloses power supply device of a tire-pressure sensor (Column 9 lines 46-49) comprising: a generator (Figure 3C shows an electromagnetic configuration with oscillating Magnetic mass 76 and a stationary pick up coil 72), which is corotational with a tire (Figure 2A shows the pendulum 10, electromagnetic configuration inside wheel 20), the generator generating an electric voltage by electromagnetic induction (Column 10 lines 53-54, lines 59-60).

With respect to claim 2 Olney discloses the device according to claim 1, wherein the generator includes a magnetic circuit, and the induced voltage is generated by a geometric change in the magnetic circuit (As shown in Figure 3C the electromagnetic configuration consist of a Magnetic mass 76 and pick-up coil 72, once the two pass each other there is current being generated in the coil 72, thus constituting a magnetic circuit).

With respect to claim 3 Olney discloses the device according to claim 2, wherein the geometric change in the magnetic circuit includes a change in air gaps (As shown in

Art Unit: 2836

Figure 3C it must necessarily be air gaps for the induction of magnetic mass 76 and pick up coil 72 to take place).

With respect to claim 4 Olney discloses the device according to claim 2, wherein the magnetic circuit includes at least one permanent magnet (Magnetic mass 76).

With respect to claim 5 Olney discloses the device according to claim 2, wherein the magnetic circuit includes a stationary magnetically-conductive core (In Figure 3C pick up coil 72 and central pole piece 74 forms a stationary magnetically conductive core) and a movable magnetically-conductive core (The chamber and Magnetic mass 76 server as a movable core, for the purpose of inductively connecting with the stationery magnetically-conductive core), and the induced voltage is generated by a relative change in a position of the movable core with respect to the stationary core (Magnetic mass 76, moves and as it comes in contact with the stationary core an induce voltage is generated).

With respect to claim 6 Olney discloses the device according to claim 5, further comprising a guide, and wherein the movable core moves along the guide (Figure 2A dotted lines show a guide where the pendulum 10 and movable chamber move about with respect to the pivot point 16).

With respect to claim 9 Olney discloses the device according to claim 5, further comprising a torsion bar (Figure 2A pivot point 16) attached to the movable core for allowing a two-dimensional change in position of the movable Core (As the tire moves the oscillating mass starts moving, thus enabling the Magnetic mass and the movable

chamber to have a two-dimensional position with respect to the stationary pick up coil 72 and central pole piece 74).

With respect to claim 10 Olney discloses the device according to claim 5, further comprising at least one stop for limiting a magnitude of the relative change in position (Shown in figure 3C the movable chamber has stopping points to limit the change in position of the Magnetic mass).

With respect to claim 11 Olney discloses the device according to claim 5, further comprising a coil (Pick-up coil 72), in which the induced voltage is generated, attached to the stationary core (See Figure 3C).

With respect to claim 12 Olney discloses the device according to claim 5, wherein the relative change in position is induced by at least one of an acceleration and a change in acceleration of the tire (As shown in Figure 2A as the tire 20 accelerates or changes its acceleration the pendulum 10 along with the electromagnetic configuration induced a change in position).

With respect to claim 13 Olney discloses the device according to claim 1, further comprising an energy storage device, and wherein an electric current is generated by the electric voltage and is used to charge up the energy storage device (Column 11 lines 18-21).

### ***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the

Art Unit: 2836

invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Olney (US 5,707,215) in view of Khan (US 6,789,928).

With respect to claim 7 Olney discloses the device according to claim 6. Olney, however, does not disclose expressly that the device comprises a restoring spring attached to the movable core for returning the movable core to a starting position after a relative change in position has occurred.

Khan discloses a spring/mass pair consisting of spring 72 and conductive movable mass 71 shown in figure 3 for closing a circuit based on centrifugal forces caused by a rotating body 20, thus once the rotating body comes to a stop the movable mass 71 returns to the starting position due to centrifugal forces acting on the spring (Column 8 lines 4-10).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have added a spring as disclosed by Khan to the Magnetic mass 76 disclosed by Olney.

The suggestion or motivation for doing so would have been to further assist the magnetic mass 76 come to a complete stop once the wheel stops moving.

With respect to claim 8 Olney discloses the device according to claim 5. Olney, however, does not disclose expressly that the device comprises a plate spring attached to the movable core for allowing a one-dimensional change in position of the movable Core.

Art Unit: 2836

Khan discloses a spring 72 for allowing a linear motion of movable conductive mass 71 with respect to rotating body (Column 8 lines 4-7). It would have been obvious from the teachings of Khan to one of ordinary skill in the art at time the invention was made to replace the plate spring with the spring 72 to attach the Magnetic mass 76. The plate spring and the spring 72 could be interchangeable used for the purpose of allowing a movable object change in position with respect to centrifugal forces.

The suggestion or motivation for doing so would have been to further assist the Magnetic mass 76 with a spring to provide one-dimensional change in position of the Magnetic mass.

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to the examiner's supervisor, Brian Sircus who can be reached on (571)272-2800. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2836

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

CA



**CHAU N. NGUYEN**  
**PRIMARY EXAMINER**